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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,451	02/01/2001	Howard Lynn Lincecum	9592.003	8184

7590 07/05/2002

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EXAMINER
AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
1772	6

DATE MAILED: 07/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-6

Office Action Summary	Application No. 09/775,451	Applicant(s) LINCECUM, HOWARD LYNN	
	Examiner Walter B Aughenbaugh	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-17* are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-11, drawn to a bag, classified in class 428, subclass 35.2.

II. Claims 12-17, drawn to a process of making a bag, classified in class 264, subclass 173.11.

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the bag can be made via injection molding.

2. During a telephone conversation with Lance A. Foster on June 19, 2002 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-11. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Specification

5. The abstract of the disclosure is objected to because "side" should be replaced with "slide" (line 5). Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 5, 6, 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claims 5, 6 and 8, "COF" must be written out in its full, unabbreviated form.

In further regard to claim 8, the phrase "Dart Impact" is incomplete. The word "strength" should be added directly after the phrase "Dart Impact" so that the claim particularly points out and distinctly claims the subject matter which the applicant regards as the invention.

Claim 8 recites the limitation "said three layers" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim. The claim should be dependent on claim 7, and not claim 6, for the lack of antecedent basis to be corrected.

In regard to claim 9, the phrase "thereby biasing opposing inside surfaces of said bag away from one another" is indefinite. The means by which "opposing inside surfaces" are "bias[ed]... away from one another" is unclear and therefore, the claim is incomplete. The structure which enables the "biasing" process to occur must be positively recited; i.e., in reference to top of page 7 of the specification, the fact that the outside layer shrinks to a greater extent than the inner layer should be included as a structural limitation in the claim. If this

functional language is not qualified with the required structural limitation(s), the phrase "thereby biasing opposing inside surfaces of said bag away from one another" should be omitted. Furthermore, "biasing" is a vague term, since it is unclear exactly what is meant by "biasing". A detailed description of the structure of the bag as a result of the "biasing" must be added. "Separate" used in line 5, page 7 of the specification is a definite term. The location on the bag of the "biasing" also needs to be positively recited. "Biasing" can only occur at the mouth of the bag. The limitation that the "biasing" occurs only at the mouth of the bag must be positively recited. Very little structure of the bag is claimed, therefore, "opposing inside surfaces" is vague and indefinite. It is not clear whether "opposing inside surfaces" are present in the bag (as would be the case in a foldable, flat bottom grocery-type bag) or if the bag is a shapeless plastic bag.

In regard to claim 10, the exact nature of the curling force and the resulting structure of the mouth of the bag must be positively recited.

Claim 10 recites the limitation "said second plastic material" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim. The claim should be dependent on claim 9, and not claim 8, for the lack of antecedent basis to be corrected.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4, 7, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Cowan.

Cowan teaches a bag with an outer layer with a static coefficient of friction of at least 0.8 (col. 3, lines 22-24) and an inner layer with a static coefficient of friction of less than 0.5 (col. 3, lines 28-30). The layers comprise polyethylene, which is intended to mean a homopolymer of polyethylene or a copolymer thereof with a small percentage of another α-olefin (col. 3, lines 35-59). The material is therefore a polymer and a plastic.

In regard to claim 7, Cowan teaches that an embodiment of the bag has three layers (col. 3, lines 14-20).

In regard to claim 9, Cowan teaches that the outer layer comprises linear low density polyethylene and the inner layer comprises a polyethylene of higher density (col. 3, lines 47-54).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto et al.

Sugimoto et al. teaches a multilayer film which comprises three resin layers for a package including a low density polyethylene-based resin layer and a high density polyethylene-based resin layer (col. 2, lines 47-53 and claim 1). The film can be used as a bag (col. 2, lines 16-17). The low density polyethylene-based resin layer (LDPE layer) is the inner layer, which is in contact with the article to be packaged, and has a coefficient of static friction of not less than 0.4 (col. 3, lines 34-45). The high density polyethylene-based resin layer (HDPE layer) is the outer layer and has a coefficient of static friction which is not more than 0.35 (col. 4, lines 51-67). The LDPE layer has a density in the range of 0.900-0.940g/cc (col. 2, lines 54-56) and the HDPE layer has a density in the range of 0.945-0.975g/cc (col. 4, lines 37-39). The invention comprises the multi-layer film and an article to be packaged (col. 6, lines 7-9). Furniture is disclosed as an article that the packaging can be used to protect (col. 7, lines 3-10 and claim 1). The fact that low density polyethylene-based resins have a higher coefficient of friction than high density polyethylene-based resins is clearly established by Sugimoto et al. wherein it is stated that the low density polyethylene-based resin layer imparts anti-slipperiness and flexibility to the multi-layer film (col. 3, lines 29-31) and that the high density polyethylene-based resin layer imparts slipperiness, strength and stiffness to the multi-layer film (col. 4, lines 51-53).
Sugimoto et al. fails to teach that the outer layer has a higher coefficient of friction and a lower density than the inner layer; i.e., the inner and outer layers of Sugimoto et al. are arranged opposite to the arrangement of the instant application with respect to coefficient of friction and density. Sugimoto et al. do teach that since the outer layer (C) has a lower coefficient of friction

than the inner layer, the buffering material (see col. 6, lines 7-9 and item 4 in Figure 1) easily slips over the packaging film (col. 6, lines 38-43). The aim of achieving easy slippage between the surfaces of two articles (i.e., the respective surfaces of the bag and the packaging material) is thus clearly established by Sugimoto et al. Whereas Sugimoto et al. aims for easy slippage between the outer surface of the bag and the buffering material to achieve easy removal of the buffering material from the film packaging an article or to achieve easy placement of the buffering material on the film packaging an article, the applicant of the instant application aims for easy slippage between the inner surface of the bag and the article to be packaged. Therefore, the instant application applies the notoriously well known practice of achieving easy slippage between a surface of a bag and a surface of an article via tailoring coefficient of friction of the bag in order to achieve easy removal/placement of an article from/in the bag. The applicant applies this notoriously well known practice to a product with a different intended end-use.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have switched the outer and inner layers in the film for packaging of Sugimoto et al., depending on the end-use of the product, in order to produce a bag with an outer layer with a higher coefficient of friction and a lower density than the inner layer so that an article can easily be removed from or placed in the bag, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

In regard to claim 8, the impact strength of the multi-layer film is addressed by Sugimoto et al. The impact strengths of example films are given in Table 1, col. 9 and are reported in units of kg*cm. While the impact strengths cannot be readily compared between Sugimoto et al. and claim 8 of the instant application, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to have developed a polyethylene-based film intended to be utilized as the middle layer of the three layer film of Sugimoto et al. with a Dart Impact strength of approximately 95 g/mil, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

In regard to claim 9, Sugimoto et al. teaches that the high density polyethylene-based resin layer imparts slipperiness, strength and stiffness to the multi-layer film, and when the film is used as a bag, the opening properties of the bag are improved and facilitates both removing an article from the bag and placing an article in the bag (col. 4, lines 51-56). It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to have used HDPE as a layer in the bag in order to improve the opening properties of the bag and to facilitate both removing an article from the bag and placing an article in the bag as taught by Sugimoto et al.

12. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan.

Cowan teaches the bag as discussed above. Cowan fails to teach that the outer layer has a coefficient of friction range of approximately 0.300 to 0.600, or 0.350 to 0.600. However, Cowan does teach that the outer layer has a static coefficient of friction of at least 0.8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the material of the outer layer in order to achieve a polyethylene-based material with a coefficient of friction within the range of approximately 0.300 to 0.600, since it has been held that discovering an optimium value of a result effective variable involves

only routine skill in the art in absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

In regard to the coefficient of friction range of approximately 0.350 to 0.600 claimed in claim 6, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the material of the outer layer in order to achieve a polyethylene-based material with a coefficient of friction within the range of approximately 0.350 to 0.600, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

13. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan and in further view of Matsunaga et al.

In regard to claim 8, Cowan teaches the bag as discussed above. Cowan fails to teach that the middle layer has a Dart Impact strength of approximately 95 grams per mil and that the outer layer has a coefficient of friction range of approximately 0.350 to 0.600. The coefficient of friction range was addressed in the rejection to claims 5 and 6. Matsunaga et al. teach a bag with three polyethylene layers (col. 2, lines 50-57). A bag of excellent strength is obtained when a polyethylene having a Dart Impact strength of not smaller than 100 grams per 30μm is used as the inner layer (col. 5, lines 36-40). Using the equality 1mil=25μm, 100 grams per 30μm is equivalent to 83 grams per mil. One of ordinary skill in the art would have recognized to have used the polyethylene of Matsunaga et al. with a Dart impact strength of not smaller than 83 grams per mil as the middle layer of the bag of Cowan in order to impart sufficient impact resistance to the bag and thus to provide a bag of excellent strength as taught by Matsunaga et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the polyethylene of Matsunaga et al. with a Dart impact strength of not smaller than 83 grams per mil as the middle layer of the bag of Cowan in order to impart sufficient impact resistance to the bag and thus to provide a bag of excellent strength as taught by Matsunaga et al.

In regard to claim 10, Cowan teaches the bag as discussed above. Cowan fails to teach that the material of the outer layer exerts a curling force on the material of the inner layer. However, Matsunaga et al. teach that the innermost layer suppresses the tendency of curling and maintains the bag opened at the time of packaging the contents (col. 4, lines 7-22). Suppression of curling by the innermost layer is accomplished by adding a smaller amount of inorganic filler to the innermost layer than to the outermost layer, thus, providing a mechanical strength to the innermost layer that is greater than the mechanical strength of the outermost layer (col. 4, lines 25-30). Matsunaga et al. thus establish the curling of polyethylene layers as a phenomenon that is notoriously well known in the art. Since the innermost layer is disclosed as maintaining the mouth of the bag in a opened state, one of ordinary skill in the art would recognize that the innermost layer, with strength that is superior to that of the outermost layer, provides a counterforce equal in magnitude to the curling force that the outermost layer exerts in the direction of the innermost layer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the polyethylene layers of Cowan in such a way as to suppress the curling of the outermost layer towards the inside of the bag and to consequently maintain the mouth of the bag in an opened state as taught by Matsunaga et al.

14. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan and in further view of Speckman.

Cowan teaches the bag as discussed above. Cowan fails to teach that an article of furniture is covered with the plastic bag. Speckman teaches a multi-ply sheet of flexible material formed into a bag-like shape for covering furniture (col. 2, lines 38-40). The innermost ply, which contacts the surface of the furniture, consists of a smooth surface to prevent rub damage to the furniture (col. 3, lines 10-14). One of ordinary skill in the art would have recognized to have used the bag with a smooth inner surface of Cowan to cover an article of furniture in order to prevent rub damage to the furniture by virtue of the smooth inner surface of the cover as taught by Speckman.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the bag with a smooth inner surface of Cowan to cover an article of furniture in order to prevent rub damage to the furniture by virtue of the smooth inner surface of the cover as taught by Speckman.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B Aughenbaugh whose telephone number is 703-305-4511. The examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

wba
06/24/02

HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

7/1/02